

SIGNATURE RECORD AND COVER SHEET

DOCUMENT DESCRIPTION			REGISTRY
SOURCE	<i>U.S. Senate</i>		CIA CONTROL NO.
DOC. NO.	-		<i>103431</i>
DOC. DATE	<i>18 April 1956</i>		DATE DOCUMENT RECEIVED
COPY NO.	<i>8</i>		LOGGED BY
NUMBER OF PAGES	<i>68</i>		
NUMBER OF ATTACHMENTS	<i>-</i>		

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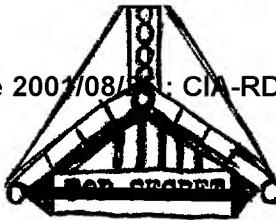
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#102431

PRESENT AND PLANNED STRENGTHS
OF THE UNITED STATES AIR FORCE

BRIEFING ON AIR INTELLIGENCE

Wednesday, April 18, 1956

[] = additional

security
changes

[] = additional
editorial
changes

United States Senate,

Subcommittee on the Air Force

of the Committee on Armed Services

Washington, D. C.

The subcommittee (consisting of Senators Symington, Jackson, Ervin, Saltonstall, and Duff) met, pursuant to call, at 10:05 a.m., in the Caucus Room, Senate Office Building, Senator Stuart Symington (chairman of the subcommittee) presiding.

Present: Senators Symington (presiding), Jackson, Ervin, Saltonstall, and Duff.

Also present: Senator Welker.

M. Fowler Hamilton, Counsel; Ramsay D. Potts, Associate Counsel; Edward C. Welsh, Assistant to Senator Symington; Fred B. Rhodes, Associate Counsel; and Wallace L. Engle and Ronald Friedenberg, Staff Members.

Allen Welsh Dulles, Director of Central Intelligence; Robert Amory, Deputy Director, Intelligence, CIA; Brigadier General Harold E. Watson,

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Commanding General, Air Technical Intelligence Center; Major George Keegan, Directorate of Intelligence, USAF; [REDACTED] Legislative Counsel, CIA; Jonathan H. Gilmore, Directorate of Intelligence, Air Force; [REDACTED] Member of the Office of National Estimates, Central Intelligence Agency; Mansfield T. Sprague, General Counsel, Department of Defense; Brigadier General Thomas C. Musgrave, Jr., representing Secretary Quarles; Major Chester Fitzgerald, Directorate of Intelligence, USAF; Staff Sergeant Robert Angwin, Directorate of Intelligence, USAF.

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Senator Symington. Gentlemen, the doors are now shut, and inasmuch as this is an executive hearing, I would like to have everybody in the room identified by whoever is responsible for bringing them.

May we start out with you, Mr. Director?

Mr. Dulles. Right.

✓ Allen Welsh Dulles, Director of Central Intelligence. [And I am responsible for] these other men, [who] will give their own names and designations.

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General Watson?

General Watson. I am General Harold E. Watson, Commanding General,

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Air Technical Intelligence Center.

Mr. Amory. Robert Amory, Deputy Director, Intelligence, CIA.

Major Keegan. Major George Keegan, Directorate of Intelligence, USAF.

25X1A [REDACTED] Legislative Counsel, CIA.

Mr. Gilmore. Jonathan H. Gilmore, Directorate of Intelligence, Air Force.

25X1A9a [REDACTED] Member of the Office of National Estimates, Central Intelligence Agency.

Mr. Sprague. Mansfield T. Sprague, General Counsel, Department of Defense.

General Musgrave. Brigadier General Thomas C. Musgrave, Jr., Secretary Quarles' representative.

Major Fitzgerald. Major Chester Fitzgerald, Directorate of Intelligence, USAF.

Sergeant Angwin. Staff Sergeant Robert Angwin, Directorate of Intelligence, USAF.

Senator Symington. At this point, I would like to ask, if there is anybody in this room who has not got Top Secret clearance and Q clearance, would they please so state?

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Senator Jackson. That comes within the provision of the Atomic Energy Act of 1954?

Mr. Dulles. That is correct.

Off the Record

Senator Symington. Will you raise your right hand, please, stand and be sworn?

You do solemnly swear that the testimony that you are about to give before this subcommittee of the Committee on Armed Services of the Senate of the United States will be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. Dulles. I do.

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TESTIMONY OF ALLEN WELSH DULLES,
DIRECTOR OF CENTRAL INTELLIGENCE

Senator Symington. Mr. Dulles, we welcome you, one of our great public servants, here, and we deeply appreciate your taking time from your busy day to be with us this morning.

At this point I would now like to turn the hearing over to Mr. Hamilton, our counsel.

Mr. Hamilton. Mr. Dulles, I believe you have a statement you are prepared to give us.

Mr. Dulles. I have, yes, sir.

Mr. Hamilton. Thank you, sir.

Mr. Dulles. Mr. Chairman, before entering the formal statement, I would just like to confirm with the committee the general conversation I had with your counsel, Mr. Hamilton, that this briefing is a classified briefing, and that the matters contained in the briefing will not be made public ^{except} insofar as later there might be agreement between us.

Mr. Hamilton. That is entirely satisfactory.

Senator Symington. That is entirely satisfactory, Mr. Dulles.

Mr. Hamilton. That is a correct statement of the conversation I had with Mr. Dulles.

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In that respect, I asked [redacted] yesterday--I don't know whether he had time to take it up with you or not--whether it would be possible for someone in CIA to examine the transcript of these hearings with a view to determining what the material was that could be released.

DCH note | Mr. Dulles. Yes. I would like it to be understood that this is not necessarily an admission on my part that anything of it can be released.

Mr. Hamilton. Of course.

Mr. Dulles. It may well prove that some of it can. I want to cooperate with the committee in every way possible; but I, in drawing up this briefing and bringing in all the experts on this--we have tried to make this briefing complete, and not having in back of my mind, "Well, don't put this in because it might get publicity."

We want to give to you as full and as frank a statement as we possibly could, so in preparing this draft we have not had any inhibitions. The only things we have kept out was information in regard to sources and methods of obtaining the intelligence, which we never give.

We have, however, in the various cases, tried to evaluate the intelligence. I have taken an oath to tell you the truth, the whole truth, and nothing but the truth. When it comes to dealing with the Soviet Union, I will have to state that on certain parts of it, the evidence is the best that we have. We will tell you how reliable we think it is, but

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there is always--not always, but on most of these points, there is the possibility of a margin of error on the plus or the minus side.

Senator Symington. Mr. Director, I served a good many years on the National Security Council, to which the Central Intelligence Agency reports, and I have had a good deal of experience with Admiral Sauers and General Vandenberg and Admiral Hillenkoetter and General Smith, your predecessors, and I think the committee fully understands your position.

Mr. Dulles. I appreciate that.

I would like to add further, that this briefing is the result of a common effort. The effort in [the Intelligence Agency,] the Central Intelligence Agency, has been more and more to pull together the various segments of the intelligence work throughout the Government.

We prepared this briefing in cooperation with Air Intelligence. We then circulated this briefing yesterday at a meeting of the Intelligence Advisory Committee. So that the intelligence heads, not only CIA and Air Force, but of the Army, the Navy, and the Joint Chiefs of Staff, were able to go over it and give us the benefit of their views.

✓
Senator Symington. Would you now list the members of that committee, Intelligence Advisory Committee, the agencies which are on there?

Mr. Dulles. Yes. The agencies are the Department of State; the Assistant Chief of Staff for Intelligence of the Army; Air Force Intelligence; Office of Naval Intelligence; Director of Intelligence, Joint

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Chiefs of Staff--what is the technical title--Deputy Director for Intelligence of the Joint Staff; the Intelligence Officer of the Atomic Energy Commission.

Senator Saltonstall. Mr. Chairman, may I address one question, not to Mr. Dulles, but to counsel?

Senator Symington. Senator Saltonstall.

Senator Saltonstall. In view of what Mr. Dulles and you have agreed, that this will only be released by agreement, where does that leave Admiral Davis? Does that mean that, assuming you two agree upon releasing something and Admiral Davis says "No", where does that leave him?

Senator Symington. Admiral Davis, as I understand it, reports to the Department of Defense. The Department of Defense has no connection whatever, except in an advisory capacity, with the Central Intelligence Agency. The Central Intelligence Agency reports to the National Security Council which, in turn, by law is an advisory body to the President of the United States and, therefore, if this committee and Mr. Dulles decide that anything should be released, it is beyond the prerogative of Admiral Davis.

Mr. Hamilton. I think I could also, in that regard, Senator Saltonstall, say this: That I discussed that question with Mr. Sprague, and my understanding was that as far as the examination of material submitted by the CIA, that would be left to the CIA.

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Is that correct, Mr. Sprague?

Mr. Sprague. That is correct.

Senator Symington. As long as the matter has been brought up, I, in turn, would like to say that whereas I have known Admiral Davis for many years, and have great respect for him, based on the written memorandum which was inserted in the record yesterday by Senator Duff, and inasmuch as we were not consulted with respect to the appointment of Admiral Davis in any way--I got my notice at 12:30, and the release was made at 1:00 o'clock--I accept that fine officer's appointment to this particular position with reservations at this time, which I may or may not bring up later.

Will you proceed, Mr. Director?

Mr. Dulles. Yes.

May I just add one point, Mr. Chairman, on what has just been said, so that there would be at least total frankness between us: In view of the fact that the briefing I am about to give contains intelligence which has been collected by the Armed Forces intelligence offices, Army, Navy, Air Force, and Air Force particularly, I would myself, before consenting to release any particular parts with which they were concerned, consult them in order to see that their sources were adequately protected, and I was not inadvertently giving out something which might lead to the betrayal of their sources.

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I just wanted you to know that that is an internal matter.

Senator Symington. That is an internal matter which involved the operations of your own department?

Mr. Dulles. That is the way I would proceed.

Mr. Chairman and Gentlemen:

The subject matter of this briefing is Communist Bloc Air Capabilities. []

The Communist bloc includes the USSR, the European satellites under Communist control, and Communist China.

In order to give you as graphic a presentation as possible on this very broad subject, I intend to follow the outline you see on the slide which is presented there.

The strengths which enable the Communist bloc to undertake a wide variety of air actions against the U.S. and its allies can best be examined in terms of three broad capabilities:

First, to undertake penetration of Western defended air space.

Second, to resist penetration of bloc defended air space.

And, third, to engage in fighter versus fighter contests for control of the air space.

I will discuss the first of these capabilities from the standpoint of bloc capability to undertake penetration of Western defended air space (1) over North America; (2) over Europe, North Africa and the Middle East; and (3) over the Far East.

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The second will be considered in terms of bloc capability to resist penetration of its own air space (1) over the Soviet Union; (2) over the European satellites; and (3) over Communist China and North Korea.

The third will be considered in terms of bloc capability to engage in fighter versus fighter contests for the control of air space.

Finally, I will summarize some of the related Soviet capabilities which support the air establishment or contribute to its effectiveness in performing assigned missions.

The bloc's offensive capabilities, air capabilities:

In discussing bloc offensive air capabilities, it will first of all be necessary to evaluate those capabilities which could be devoted to conducting initial attacks against the continental United States and against her key installations and forces overseas.

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These are the objectives which the Soviet Union would pursue in initial attacks delivered against us. 7

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Penetration over North America:

Let us consider, to begin with, Soviet capabilities for achieving these objectives insofar as attack on the continental United States is concerned.

Such an attack would be executed primarily by Soviet long-range aviation. []

Currently we estimate that Soviet long-range aviation has at its disposal more than 1,000 bombers. Most of these [] bombers are the BULL piston medium bombers comparable to the U.S. B-29, and are incapable of reaching the continental United States on two-way missions, unless modified to achieve maximum range by sacrificing equipment and crew weight, in a manner similar to the U.S. B-29B. In this event they could reach the area of Seattle on two-way missions.

When I use these terms, I believe you have before you a general designation of these terms, the BULL, BADGER, BISON, and so forth. Possibly you all are familiar with them. I just brought a few single sheets like this, if it is more convenient.

Mr. Hamilton. Do you have any copies?

Mr. Dulles. Yes. If you will just pass them around.

It may be a little easier than the sheet.

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Senator Jackson. We do not have the BULL.

Mr. Dulles. That is the old fellow, that is the TU-4.

Senator Jackson. TU-4?

Mr. Dulles. Yes.

In this event -- I read that.

Several hundred of the bombers currently available to the Soviet long-range aviation are BADGER jet medium bombers, roughly comparable to the B-47. The speed and combat ceiling of the current BADGER represent a significant advance over the BULL. Its range capabilities are approximately the same as those of the BULL, however, and it is capable of reaching the Seattle area of the United States on two-way missions.

Both the BULL and the current BADGER could cover most significant targets in the United States providing: (a) they were refueled in flight, and (b) they were dispatched on one-way missions.

We believe the Soviets are psychologically capable of undertaking one-way missions if required; that is, they might sacrifice the crew if it were necessary.

Inflight refueling is well within Soviet capabilities.

There remain some BISON and BEAR heavy bombers which, we ^{believe,} ~~estimate,~~ are currently operational.

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These figures are subject to a margin of error.

The BISON and the BEAR, you are familiar with. They are given on this sheet here. They are the heavies, the heavy jet and the heavy turboprop.

The BISON, whose performance characteristics are shown on this slide -- the slide that you have there -- is a jet heavy bomber roughly comparable to the B-52 [#1 insert attached]. With single inflight refueling, the BISON, if based on Chukotski, [could would have the range capability to reach range over the U.S. -- Chukotski Peninsula is one opposite Alaska, as you know -- could range over] many parts of the U.S./on two-way missions.

The BEAR, which is a turboprop heavy bomber, is inferior to the BISON in speed and altitude capabilities, as shown on this slide.

[Insert #2 attached.] With its superior range, however, it could reach virtually any target in the United States on two-way missions from forward bases without refueling.

By "forward bases," I mean any [of these] bases in the north of the Soviet Union.

Mr. Hamilton. Are you going to come later to the question, Mr. Dulles, of whether they have adequate bases to support that?

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Mr. Dulles. Yes.

Senator Symington. Excuse me. For information only, would
you break down the BISONS and BEARS?

OFF THE RECORD

Mr. Dulles. The ranges I have just given for the BULL,
the BADGER and the BISON are based on the assumption that
these bombers would be launched from Soviet bases closest to North
America, those in the Chukotski, Kamchatka, and Kola peninsulas,
and those located in the Central Arctic.

OFF THE RECORD

Senator Jackson. I think you meant USSR. I think you
said "U.S. could at present launch." I thought you would
want to check it.

OFF THE RECORD

Mr. Hamilton. I see.

Mr. Dulles. In addition to the forward bases, long-range
units might also employ airfields in the Leningrad and Baltic-
East German areas.

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Soviet crews, in addition to the basic navigational skills, are ~~believed to be~~ receiving training in the utilization of radar and other electronic bombing and navigational aids.

Some Soviet crews are almost certainly capable of navigation to the most difficult targets in the U.S. Most crews are probably capable of navigating with sufficient accuracy to reach major cities and industrial centers in the U.S.

With regard to crew proficiency, let me detail for a moment the status of personnel of the Soviet air forces.

Mr. Chairman, I think this is a very important point, and one that I think requires stressing, is the question of personnel on both sides.

Officer and non-commissioned officer personnel, the real backbone of the air forces, are nearly all career personnel. They enjoy many special privileges and morale is believed to be high.

Their career status means that their proficiency improves cumulatively with years of training.

The Soviet air forces, along with the air defense forces, submarine and armored forces, also receive high priority in the allocation of conscripted personnel.

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A high rate of re-enlistment is achieved through both pay benefits and coercive methods. That is where a dictatorship has the advantage over us. If they want to keep a good man in the air force, they keep him, even though his term of enlistment may have expired.

Now, generally they do not have much difficulty, because they are able to give benefits in the social system which compensate, and there isn't the competition between, let's say, private business for the trained air force personnel that you have here. They just don't let private business compete against the military forces under the Soviet system, or not to any degree.

~~28 April 1956~~

Note to The Director:

Here follow 11 pages of discussion on the training programs of the Soviet air forces, to be left in the Record with a few minor deletions for security reasons. In your Master Copy, these are from page 19 line 5 through page 30 line 11. 7

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Mr. Hamilton. As I understand it, these men, after they are graduated, there is no problem about keeping them in the air force?

Major Keegan. No, sir. They are professional officers.

Mr. Hamilton. That is their career.

Major Keegan. Yes, sir.

Mr. Dulles. Mr. Chairman, while the Soviet government would be dependent primarily on the BULL and the BADGER, that is the old B-29 type and B-47 type, for attacks on the continental United States at the present time, this dependence will decrease as the period advances and increasing numbers of heavy bombers become available.

OFF THE RECORD

✓ [Mr. Dulles presented his estimate of the Soviet long-range bomber force, pointing out that in the next several years it would probably be modernized and would achieve a strength of several hundred heavy bombers and several hundred medium bombers.]

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Senator Symington. Mr. Director, could I ask how many pages you have in your total statement, and how many you have read so far?

Mr. Dulles. Well, I have 31.

Senator Symington. And you have read how many?

Mr. Dulles. I have read only eight, and I want to get along.

Senator Symington. No, no. It is very interesting. I just thought, for the benefit of the committee, we would like to see how it was going.

[Mr. Dulles. I would like to just assure myself; I am sure these figures are correct. I am not sure these figures have been coordinated with the entire intelligence community for the whole period, but very likely they have been.]

General?

General Watson. No, sir, they have not been coordinated throughout the whole community. This is going to be placed before the committee soon, but for this --]

Mr. Dulles. [So I would like,] if we have any reservations or suggestions on these total figures, I will bring those before the committee when they have been processed in the Intelligence Advisory Committee.

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Senator Symington. May I say that this is your briefing --
Mr. Dulles. Quite.

Senator Symington. (Continuing) -- and we would appreciate
your giving us the figures that you believe are the right
figures.

Mr. Dulles. Right.

Senator Symington. And do as much as possible not to have
any conflict in the figures as your own briefing.

Mr. Dulles. Quite. I will notify the committee in the
course of the next very few days. The whole intelligence
community, for which I have responsibility, may have some comment
on these figures. It requires elements of judgment as well as
ability to produce.

Senator Symington. Thank you, Mr. Director.

Mr. Dulles. How many planes will they want to have in
this particular fleet, how many planes can they man, how many
planes can they use off the airfields they have? And that
brings in not only the element of how many can they produce, but how
many do you want at a given date.

Senator Jackson. Mr. Dulles, I think I might refer this
to the General to clarify the record.

OFF THE RECORD

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General Watson. That is correct.

Senator Jackson. One was the production figure, and the other figures were the operational figures?

General Watson. That is right.

Mr. Dulles. Then to proceed, Mr. Chairman, we are discussing here the BISON.

OFF THE RECORD

Mr. Hamilton. Mr. Dulles, this raises a rather difficult problem from the standpoint of the record. I was just wondering how we could get into the record the substance of the charts. I wonder if it would be possible to supply for the record a brief description of what the charts show.

Mr. Dulles. Would you do that as being --

Mr. Hamilton. As being perhaps the most expeditious way; that is a better suggestion.

Mr. Dulles. We will, then, now at this point, for the record, give a description.

Mr. Hamilton. It may not be necessary for you to do it, sir, as you go along, if you care to supply it later.

Mr. Dulles. I think this can be done in a very few moments on this chart. Mr. Anory will give that presentation.

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[Mr. Dulles discussed possible future advances in Soviet air delivery systems, including supersonic aircraft.]

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Mr. Dulles. We go on the assumption if we can do it, they can probably do it.

Senator Symington. Now, for the first time, may I ask a question here of you or your experts. Would that be a supersonic bomber comparable to the B-58 type, or is there any type that it would be comparable to? In other words, is there any known knowledge now of efforts on the part of the Soviet to build a supersonic bomber as a further development in progress of airpower beyond the B-52?

Mr. Dulles. You are not now talking about a nuclear; you are talking about any kind of a bomber that is supersonic?

Senator Symington. I definitely am not talking about a nuclear, but talking about a supersonic bomber comparable to the B-58 or any other supersonic bomber that I know of.

Mr. Dulles. General, would you answer that?

General Watson. Yes, sir. [We give them credit] for having a capability to do so. []

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Senator Symington. Do we feel they will go into the missile field preferably beyond the B-52? Is there any information on that, Mr. Director, that you would like to supply the committee?

Mr. Dulles. If they should make great progress in the missile field, that would certainly have an influence on their aircraft construction, just as it would in this country.

OFF THE RECORD

Would you have anything to add to that, General?

General Watson. No, sir.

Mr. Dulles. When I was giving the range of the BISON with regard to its attack capabilities, I overlooked a sentence here that dealt with the BEAR, which I think I should add at this point.

Although as previously stated, the BEAR has speed and altitude limitations, with inflight refueling, the BEAR could reach most significant targets in the U.S. on two-way missions, even from interior Soviet bases. Here is a slide which Mr. Amory will briefly discuss, showing the BEAR's range from these bases.

Mr. Amory. (Referring to slide) From back in central Russia along the Trans-Siberian Railroad, you might say; and unrefueled, that gives

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the BEAR two-way missions just to the northern frontier of the United States. Whereas, refueled, it could cover all of our U. S. continental targets.

Mr. Dulles. To return to the text of my briefing, I have just been discussing the possibility of an nuclear-powered heavy bomber.

OFF THE RECORD

Mr. Dulles stated that the Soviets would probably be able to develop intercontinental ballistic missiles within a few years.

OFF THE RECORD

This, of course, assumes certain technical breakthroughs on which we are working and on which they are working, and we can't predict with firmness the date when those will be achieved. []

With regard to Soviet employment of missiles against the North American continent, we believe that submarine-launched missiles might [] supplement attacks by aircraft.

OFF THE RECORD

Mr. Hamilton. Mr. Dulles, are you going to come later, perhaps, to the consideration of intermediate range?

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Mr. Dulles. Yes, that comes at a later stage.

OFF THE RECORD

Mr. Dulles presented his estimate of the future capabilities of Soviet long-range aviation, pointing out that these capabilities would probably increase considerably over the next several years, through the introduction of large numbers of modern bombers, range extension techniques, improvement of base facilities, and cumulative improvements in the competence of Soviet air crews.

OFF THE RECORD

Next, what can be said of Soviet capabilities against overseas installations and forces?

Penetration over Europe, North Africa, and the Middle East:

The strengths already discussed could also be used against Allied-defended air space in Europe, North Africa, and the Near East.

OFF THE RECORD

Nonetheless, the principal component of Communist aviation available for attacks in Europe and the Mediterranean area at present is a large force of ^U/jet light bombers.

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There is also a ground attack force of ^{L7} jet fighters and ^{L7} piston aircraft.

We believe that the trend in the USSR is toward the use of jet fighters and light bombers for direct ground support.

Senator Symington. Excuse me. Could I interrupt you there?

Mr. Dulles. Yes.

Senator Symington. We had a figure given us before the Senate Armed Services Committee of ^{L7} IL-28's at one point. In a briefing that we got in Omaha recently, ^{L7} the figure was around. ^{L7}

Now you give a figure of ^{L7} on the IL-28's. What is the reason for the discrepancy in those figures?

Mr. Dulles. The principal component of Communist aviation available for attacks in Europe and the Mediterranean area at the present time is a force ^{L7} of jet light bombers. This would assume that is available for this particular mission.

General Watson. That is area.

Mr. Dulles. We are not assuming the whole force is employed on a particular mission. We would assume they will apply to a mission a part of the available force, reserving a part of the force for other missions.

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Senator Symington. Mr. Director, to clarify that figure in your compilation, what is the figure of the total production, of the latest date you have, of IL-23's?

Mr. Dulles. What have they now in operational units?

Senator Symington. Any way you would like to give it; what is the figure?

Mr. Dulles. Have you got that figure?

Senator Symington. I think it is important we clear that up.

Mr. Dulles. Yes, sir.

General Watson. I wish --

Mr. Dulles. As you know, they are giving some of these to the Egyptians at the moment. They are giving some of them away.

Senator Symington. I understand they are merchandising them along the lines of the Ford Motor Company, which used to get the Crown Princesses in, and getting the latest Lincolns. I heard that from one of our Ambassadors.

Mr. Dulles. I will come back to that.

General Watson. Could we have a moment to cross-check?

Mr. Dulles. Certainly.

I might just go on while they are finding that figure, and we will put it in the record.

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Senator Symington. Go on.

Mr. Fuller. Currently, the standard Soviet jet light bomber is the BEAVER. This plane has a combat radius of over 600 nautical miles, a maximum speed of more than 400 knots, and a combat ceiling of more than 40,000 feet.

OFF THE RECORD

Chief reliance for ground attack has been placed on the BEAST, a piston aircraft used in World War II. The BEAST has a combat radius of 170 nautical miles and a maximum speed of 270 knots.

In addition to the BEAST, ground attack units also include the FAGO -- that is the MIG-15 -- a jet fighter with a maximum speed of 530 knots and a combat radius of 100 nautical miles when employed as a fighter bomber.

In the next few years, the BEASTS will have been phased out, and the FAGOS supplemented by numbers of newer jet day fighters.

For the use of the aircraft which would be dispatched against Europe, North Africa, and the Middle East, there are within the bloc many suitable airfields. Roughly two-thirds of these airfields are located in the Soviet Union itself. [7]

Not all of these fields would be used by jet light bombers at one time, for many would have to stage aircraft serving other roles than attacks on U.S. overseas forces.

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Maintenance facilities at the fields on the periphery of the Soviet bloc and the logistical system for their supply appear to be adequate to support [the] Communist [initial penetration of] capability to penetrate Allied-defended air space in Europe, North Africa, and the Middle East.

It should also be noted that the USSR is believed to have [] radio navigation and bombing systems. []

[With respect to our overseas bases, I hasten to point out that the Soviet Union is in process of developing guided missiles capable of attacking these bases.]

OFF THE RECORD

DCI note
Mr. Dulles discussed Soviet progress in the development of short and medium range missiles. He estimated that missiles of both these categories could have been developed in the USSR.

OFF THE RECORD

Senator Symington. May I put in a question? Speaking as a manufacturer, how can you test something which has not been produced?

Mr. Dulles. I mean serial production. Obviously you have produced a prototype, and then you try it out, and then you determine whether that prototype is worth putting into serial production, and then into operational units.

OFF THE RECORD

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Senator Symington. Do you know how many airplanes we build that we call prototype before we go into production?

Mr. Dulles. I am not the expert on that, on our own production.

General?

General Watson. This varies, of course, with the size, but generally it means three or four prototypes.

OFF THE RECORD

Senator Symington. This is a matter of great interest to the committee, and I have a lot more questions I would like to ask at this point.

We understand the first ballistic missile the Nazis fired was in 1942; is that correct? It was the V-2 type.

Mr. Dulles. Well, the V-2 type didn't work at that time, as I recall. They were testing it out at Peenemunde. I happened to be at the other end of the line, getting intelligence on that, in 1943, I believe.

But do you know, General?

General Watson. The first test firing, purely for test experimental purposes, was in 1942.

Mr. Dulles. Yes.

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Senator Symington. It was my understanding that in 1944, in one plant underground they were building 600 ballistic missiles a month, the Nazis were; is that correct?

Mr. Dulles. You are considering both the V-1 and V-2?

Senator Symington. I am considering the V-2 only, the ballistic missile.

Mr. Dulles. I have no figures on that, but I imagine those could be obtained, and I could bring them.

Senator Symington. Could you do that?

Mr. Dulles. I would endeavor to do that.

Senator Symington. Could you let us know now what was the estimate, what was the actual range of the V-2?

Mr. Dulles. As I recall, it was around 180 miles; is that correct?

General Watson. Yes.

Senator Symington. One hundred eighty nautical miles?

Senator Jackson. One hundred eighty nautical miles.

Senator Symington. That is roughly what, in statute miles?

Mr. Dulles. Two hundred ten.

Senator Symington. That was eleven years ago.

Mr. Dulles. Correct.

Senator Symington. The Soviets captured the physical grounds and many of the people who were involved in that production eleven years ago; is that correct?

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Mr. Dulles. That is correct.

Senator Symington. Have they been, to the best of our knowledge, concentrating on the missile picture since that time?

Mr. Dulles. They have.

Senator Symington. As a weapon?

Mr. Dulles. That is correct.

Senator Symington. At this point, I would like to ask, if I may, if there is any other member of the committee who would like to ask any questions here. Senator Saltonstall?

Senator Saltonstall. I would like to hear Mr. Dulles through.

Senator Symington. At this time, I thought it was quite important.

Senator Duff. I would like to ask a question, if I may.

Is the difference between the number of prototypes of a plane, as compared to a missile, due to the fact with a plane, when you send it out, you can bring it back; when you have a missile, you have a different proposition entirely, is that not correct?

Mr. Dulles. That is correct.

Senator Duff. And you would have the accuracy of performance of the plane, because you would know when it left and when it came back. But what knowledge is there of the accuracy of the missiles?

OFF THE RECORD

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Senator Duff. May I ask --

Mr. Dulles. That is correct, isn't it?

General Watson. That is correct.

Mr. Dulles. Have you anything to add to that?

General Watson. With reference to the first question you asked, sir, in many instances I suggest we have built up to 60 prototype missiles for test prior to settling down to the production of a particular model; improvements throughout the total missile, propulsion, guidance, warhead, and so forth.

OFF THE RECORD

Does that answer your question?

Senator Symington. Senator Jackson?

Senator Jackson. No.

I assume you are going to come to the IRDM.

Senator Symington. Senator Ervin?

Senator Ervin. No questions.

Mr. Hamilton. May I just ask two questions, Mr. Chairman. Are both these missiles, Mr. Dulles, that you mentioned, ballistic missiles in the sense they have internal guidance systems?

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OFF THE RECORD

Mr. Hamilton. How would they be powered? Do we know that?

General Watson. With either liquid rockets --

Mr. Hamilton. Propelled?

Senator Jackson. Liquid or solid?

General Watson. Yes. Propellant.

Senator Jackson. Propellant.

OFF THE RECORD

Senator Symington. Let me ask one more question.

You mentioned the building of 60 missiles for test before production.

General Watson. We frequently do that, as our practice.

Senator Symington. You frequently do?

General Watson. We don't know for sure whether --

Senator Symington. Would you name the ballistic missile that you built 60 of?

General Watson. No, sir, I did not mean that. I would like to set the record correct, if it was misunderstood. For the types of missiles we have been firing in our test ranges.

Senator Symington. Like what?

General Watson. The FALCON.

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Senator Symington. The FALCON is an air-to-air missile, is that right?

General Watson. Yes, sir. And we frequently do build up to possibly 60 of those for test purposes solely.

Senator Symington. What other missiles have we built approximately 60 of for test solely?

General Watson. Our counterpart of the V-2, there were approximately 67 test firings.

Senator Symington. What do we call that?

Senator Jackson. It is the Redstone.

General Watson. No, sir, it is not the Redstone. The Redstone is a later improvement of the results they got in V-2. We have duplicated the V-2, as I understand it, and built practically a duplicate of the V-2, and test-fired about 67 of those.

Senator Symington. How many did they build similar to those, roughly, in this country?

General Watson. I do not have that figure, sir.

Senator Symington. And that would be a percentage of the 60 you are talking about?

General Watson. That would be a percentage of the 60 that I am talking about.

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Senator Symington. Will you find out, for the record, how many were actually built, because the discussion was centered around how many prototypes you build before you go into production.

General Watson. Yes, sir.

Senator Symington. Will you put that in the record at that point, please?

General Watson. Yes, sir, we will do that.

Mr. Dulles. Mr. Chairman, I want to make it clear I am no expert in the American production side of this, and therefore I cannot pass in any way upon --

Senator Symington. I want to make it clear I am not, either, and I doubt whether anyone is.

Mr. Dulles. I want to admit I went down to the Banana River and looked at this as an amateur, but that is as far as I went.

Senator Symington. Will you proceed.

OFF THE RECORD

Discussion of intermediate range ballistic missile.

OFF THE RECORD

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Mr. Dulles. []
Insofar as Soviet offensive capabilities are concerned, there remain to be discussed the U.S. overseas installations and forces located in the Far East.

[] [] [] []
In the Soviet Far East, [] long-range [] tactical [] and [] naval aviation units are deployed. []

The combat equipment of the Chinese Communists and the North Korean air forces is wholly Soviet, and include most standard operational types.

Currently, the Communist forces altogether have available in the Far East approximately [] long-range [] [] medium bombers, [] jet light bombers, and [] attack aircraft. This is where some of those jet light bombers go.

Senator Symington. Have we got the figure yet of the total production of jet light bombers?

[]
General Watson. By area, there are [] in operational units in the area of Europe and the Mediterranean.

Senator Symington. Just the total figure of the production of IL-28's, General.

General Watson. By the end of? []

Senator Symington. No. I want to know what the figure is now.

General Watson. No; yes, sir.

Mr. Dulles. The 1 January 1956 figure.

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General Watson: The 1 January 1956 figure is the figure you want.

As of 1 January 1956, it is estimated they had produced ✓ 7.

Senator Symington. That was the figure that I had in my mind.

General Watson. Yes. That is the total production as of 1 January 1957 -- I mean 1956, excuse me.

Senator Symington. At this point I would like to read into the record the testimony of Secretary Quarles before our committee, which I do in justification for delaying this very interesting briefing from you, Mr. Director.

I asked:

OFF THE RECORD

✓ 7

Mr. Hamilton. I am just asking you from your own point of view.

Mr. Dulles. Yes, sir.

Senator Symington. Mr. Director, I would ask one more question: Would you be good enough, at this point in the record, and based upon the questioning of various members of this committee, to add, at your convenience, a statement of what we have under discussion?

Mr. Dulles. I don't know that I quite get that.

Senator Symington. In other words, a statement of the position now as against the previous position, and you mentioned the word "technicians." Perhaps you would want to say what technicians, in the classification of a paper, any sort of classification you consider advisable; would you

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sort of summarize the last 15 minutes' discussion with respect to the missile knowledge that we have of the Soviet, and present it for the record at this point?

Mr. Dulles. I will be glad to do that.

Senator Symington. I am sure you are. The only thing is, we have conflicting testimony.

Mr. Dulles. I understand you have, and from very high authority.

Senator Symington. Very high and reputable authority, and we would like to get it clarified.

Mr. Dulles. Fine. And we will endeavor to do that, and I will also talk the matter over with Secretary Quarles.

Senator Symington. All right.

Mr. Dulles. The striking power of the Communist Far East air force should grow substantially with the phasing in of new types, and we estimate that it will include [jet] heavy bombers, ~~turboprop heavy bombers~~, jet medium bomber, [piston] medium bombers, jet light bombers, and jet ground attack aircraft.

Of these, however, the heavy bombers and many of the jet medium bombers could be used in attacks on North America.

 We believe for the present that in attacks on the United States the USSR would place chief reliance on aircraft carrying nuclear weapons.

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Present Soviet capabilities for air attack on continental U.S. are restricted by various limitations.

However, the USSR could make considerable strides to overcome each of these limitations. With regard to bloc capabilities to attack areas peripheral to its borders, a wide range of capabilities are already available, / 7 and these capabilities will increase significantly. / 7

Now to turn, if there are no questions, to bloc defensive air capabilities.

Now to examine the other side of the coin -- those --

Senator Welker. Mr. Chairman, may I ask a question?

Senator Symington. Senator Welker. We welcome you with us.

Senator Welker. Thank you.

I have a little difficulty in hearing my friend, the Director. I didn't know whether or not you pointed out the number of MIG-17s they have over there now in the Soviet.

Mr. Dulles. In the Far East?

Senator Welker. Yes. Well, not only in the Far East; generally speaking. I came in late. Perhaps you have already testified as to the number of MIG-17s we feel they have.

Mr. Dulles. We have taken that up area by area. I have here / 7 ground attack aircraft. We have a figure here that General Watson has

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just given me, that we estimate that the total for all areas, of MIG-17s -- are these in operational units?

General Watson. No, sir. That is the total available, inventory available.

Mr. Dulles. Total inventory of MIG-17s is in the range of 7.

Senator Walker. Mr. Director, and Mr. Chairman, perhaps I was misled or didn't hear correctly when we interrogated Secretary Quarles, in which he stated they had 7 MIG-17s.

Mr. Dulles. How many?

Senator Walker. 7

Am I correct on that, Mr. Chairman?

Senator Symington. That is correct.

Mr. Dulles. What date are these figures for which you give me? These are 1 March 1956.

Senator Jackson. What is your figure?

Mr. Dulles. It is 7

Senator Jackson. What about the MIG-15? Maybe that might clarify that.

Mr. Dulles. There are a lot of them. They are all over the lot.

✓ [How many MIG-15s do we have?]

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1 March 1956, this is the Soviet Union alone, [] MIG-15s.

Senator Symington. Does the MIG-17 -- do you call that the FRESCO?

Mr. Dulles. Yes.

Senator Symington. We have been given two figures before on the FRESCO. One is [] and the other is [].

Mr. Dulles. That is FRESCO, yes.

Senator Welker. Mr. Chairman, I shall not bother you longer, but I think you were present when I directly inquired and interrogated the Secretary, Secretary Quarles, with respect to the MIG 19. You will remember --

Senator Symington. MIG-17.

Senator Welker. MIG 17. In which you will remember I compared it to a .22 rifle, and I asked him directly with respect to the MIG-17, and I got a categorical answer that his best information was that they had available at that time [] MIG-17s.

Now, I don't want to belabor the committee, but I have seen the figures here a little bit --

Senator Jackson. I don't want to be gratuitous, but could it be there is a difference between planes produced again, and operational numbers?

Mr. Dulles. This total was supposed to be planes, total planes available.

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[]

General Watson. That is the all-weather.

Senator Welker. Yes, sir.

If I may read into the record, with the courtesy of the distinguished chairman, an answer to my interrogation, on page 212 of the hearings of the Armed Services Committee, dated February 21, 1956, marked "Top Secret." This is his answer:

"Now, in listening to the general statement with respect to our aircraft, I don't think we can go to the American people and show where we have done our job, either one of us, when we find that they have [] MIG-17s and we have -- is it []".

Now, that is the testimony. That is the answer to my interrogation.

Senator Symington. Can I ask a question.

Did you request General Watson to come here this morning? Does he work for you?

Mr. Dulles. No, he works for the Air Force, but I requested the Air Force, or I requested the Department of Defense to assign the appropriate officer to accompany me here today on the technical questions.

Senator Symington. General Watson, where are your headquarters?

General Watson. My headquarters are at Wright Field, Dayton, Ohio. I work for the Director of Intelligence, United States Air Force.

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Senator Symington. Who is that?

General Watson. General Sanford.

Senator Symington. Where is he stationed?

General Watson. He is stationed here in Washington.

Senator Symington. Why did you come, or they decide to have you come instead of him?

Mr. Hamilton. Senator, maybe I can shed a little light on that, if I may, because we had some conversations.

Senator Symington. We seem to be pretty well mixed up.

Mr. Hamilton. Because we had some conversations with General Sanford, and it was his view and, I take it, also it was the view shared in by Mr. Dulles -- and if I misinterpret it, he can correct it -- perhaps the best way to handle it from the standpoint of getting the information to the committee quickly and expeditiously was for Mr. Dulles to come with his assistants; to make the briefing, and then to have available General Watson who, as I understand it, is our air intelligence organization's outstanding authority on the technical aspects on these matters, so that he could supplement Mr. Dulles' information in the areas where, naturally, Mr. Dulles would not have the technical detail.

Senator Symington. Well, as the Senator from Idaho has pointed out before, and other figures by the Senator from Washington, there seems to

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be a discrepancy between the figures that have been presented by the Secretary of the Air Force to the committee, and the figures which are being presented today by the Director, his information coming from another member of the Air Force.

And I would request that the record show that we would like to be clarified on these figures, so that we know -- some of the figures must be right and some, therefore, must be wrong -- and I would ask that the record be clarified.

I thank the Senator from Idaho for bringing up the MIG-17 figures.

(OFF THE RECORD)

Senator Jackson (presiding). You may proceed, Mr. Director, from the point where you left off, if there are no other questions.

Mr. Dulles. It will be a pleasure to get together on these figures and to present a memorandum. I will be in touch with the Secretary of the Air Force on these points which Senator Welker has brought up, with regard to the MIG-17; and on the other point, in regard to [the range of] the intermediate missile, we will submit a clarifying memorandum as to the intelligence.

Senator Jackson. Mr. Dulles, this question I have, which I would like the General to answer, if he would, because it is a question which

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involves joint intelligence of the Defense Department, and I will put it to you and you take it and bring an answer back:

Is it accurate to say that the Soviets may achieve a continental ballistic missile, one with a 1500 to 2000-mile range, before we will?

If so, what degree of likelihood do you attach to this possibility?

I will give you a copy of it if you want it.

General Watson. I would appreciate it.

Senator Jackson. I am not expecting you to answer that now.

Because this is a joint question, Mr. Dulles, you are not expected to know what we are doing internally in detail, our own program, so I directed it to the General, because it is a Defense Department-Air Force answer, based on intelligence information of the Soviets and our own capabilities. Excuse me.

Mr. Dulles. I understand that.

(The answer to the question is as follows:)

COMMITTEE INSERT

Senator Jackson. Go ahead.

Mr. Dulles. Bloc defensive air capabilities:

Let us now examine the other side of the coin -- those strengths which enable the Soviet bloc to resist penetration of its own air space.

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Bloc air forces will attempt to carry out the mission of defense of their own territory by two principal methods: one will be active air defense of bloc territory, while the other will be offensive operations against Western nuclear capabilities.

I have already discussed the second of these methods, but I want to emphasize at this point that a high degree of Soviet success in attacking Western nuclear capabilities at the outset would greatly simplify the Soviet air defense problem.

I shall present the air defense problem in terms of bloc capabilities to resist penetration of the air space over (1) the Soviet Union itself, (2) the European satellites, and (3) over Communist China and North Korea, with particular attention in all three cases to estimated bloc capabilities 17.

Air Defense of the Soviet Union:

At present, the USSR has more than 9,000 jet fighter aircraft available for resisting penetration of Soviet-defended air space. Of these, 17 are in air defense units, including 17 day fighters and 17 all-weather fighters.

17 The Soviets may concentrate their efforts on sharply increasing the proportion of all-weather fighters in units.

17

This slide will give you an indication of the total strength of the fighter aircraft we expect to be available for air defense of Soviet and

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satellite territory [] .

Of the more than 9,000 Soviet fighters shown on this slide, about [] fighters, including more than [] day and [] all-weather fighters, will probably be assigned directly to the Soviet air defense organization. But we know that fighters of the tactical and naval aviation components are also available for air defense.

Notice especially the improved day and all-weather fighters, several of which the Soviet Union already has in operation. []

The FLASHLIGHT is a true all-weather fighter [] This slide shows key performance characteristics of the FLASHLIGHT.

OFF THE RECORD

[]

This slide shows the probable performance characteristics of [] the FARMER, a day fighter which is already operational

These fighters can be deployed over a very extensive base network. At present, there are several hundred airfields in the USSR suitable for use by fighter aircraft.

Even this number of bases might be inadequate to meet all the air defense and other requirements for a major war effort, and evidence [] ~~new airfield construction~~ indicates that the Soviets recognize the need for greater flexibility for aircraft deployment in the future.

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OFF THE RECORD

[] 7

The USSR has developed an extensive warning and control system which
has been undergoing continuous modernization for the past ~~four~~ ^{several} years.

OFF THE RECORD

Mr. Dulles discussed in greater detail the radar defenses of the Soviet Union.

The Soviet Union continues to place considerable emphasis upon radar-directed antiaircraft artillery, and there have been significant developments in both high and low altitude weapons. [] 7

~~We estimate that~~ the Soviet air defense and field forces now possess many thousands of antiaircraft artillery pieces. [] 7

In addition, [] 7 heavy antiaircraft guns have begun to appear in operational units. The heavier weapons are ~~estimated~~ ^{believed} to be capable of continuously-pointed, radar-directed fire up to approximately [] 7 feet.

Antiaircraft gun defenses are most heavily concentrated around Moscow and other areas of strategic importance.

It is highly likely that the USSR will place increasing reliance on guided missiles for air defense use. [] 7

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[] We estimate that both surface-to-air and air-to-air guided
[] missiles could currently be available for operational use. []

They are developing, and may now have in production, automatic computation and data-handling devices.

To summarize Soviet capabilities to defend against penetration of the air space over the USSR, I would say that a powerful Soviet air defense organization exists today and is constantly being strengthened. This system, in daylight and good weather, is now capable of inflicting severe losses on individual piston bomber formations and some losses on individual high-speed jet bomber formations at medium altitudes. []

Under conditions of poor visibility and [] at high altitude, this capability would diminish considerably, although the Soviet deficiency in all-weather fighters is rapidly being overcome.

OFF THE RECORD

[]

As time goes on, the USSR should be able to improve its defenses significantly, through increases and improvements in all-weather fighters, [] radar equipment, and [] guided missiles, some possibly with nuclear warheads. []

Despite these improvements, we ^{believe} [estimate] that Soviet air defenses will still have numerous deficiencies which ^{could} [can] be exploited by penetration forces.

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Now, you want to stop, Mr. Chairman, at a quarter of one?

Senator Symington. Mr. Director, I would like to say this: That I am sure the other members of the committee, the counsel, and the Chair, would like to ask you some questions with respect to this testimony and, therefore, we will have to have another session.

Mr. Dulles. Quite.

Senator Symington. It is very interesting and very instructive.

What would your thoughts be as to what you would like to do?

Mr. Dulles. I could, I believe, in a half -- I believe I could finish the direct presentation in a half-hour.

Senator Symington. Well, I should think that would give us a chance to study and think, and perhaps on that basis we would be better --

Mr. Dulles. Then I could come back later, particularly to clarify these points, and have the questions which you have to present.

Senator Symington. I would like to at this point, if I may, ask the committee this question off the record.

(OFF THE RECORD)

Senator Symington. Back on the record.

Mr. Dulles. We turn to the air defense of European Satellites.

Let us now turn briefly to Communist strengths for resisting penetrations of the air space over the European satellites.

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I think it fair to say that the satellites are "country cousins" in the air defense field as in so many other fields. The Soviet concept of deployment of air defense forces appears to be from Moscow outward -- the newest and best equipment is first assigned to the defense of the Soviet citadel, and the peripheral areas and satellites receive progressively lower priorities.

The satellites are tied into the over-all [command] structure of the bloc air defense system, but this, we believe, is principally for the purpose of extending the protection of Soviet territory as far as possible beyond the borders of the USSR.

There are at present about 1 7 jet fighters in the European satellites which could be used in air defense. Most of these are older day fighter types, although some fighters equipped with airborne aids to interception are beginning to appear in the satellite air forces.

There are approximately 1 7 airfields in the satellites on which these fighters could be deployed, as well as radar sites 1 7 and antiaircraft weapons. 1 7

Satellite capabilities to defend their own air space will increase moderately during the next few years.

The satellites will receive increasing numbers of antiaircraft artillery pieces as the Soviets replace various models with newer equipment and add guided missiles to their own air defense system.

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[] Older radars will probably be turned over to the satellites in increasing numbers.

The early warning and interception problems facing the satellites will, of course, continue to be complicated by their geographic position on the edge of bloc-controlled territory.

Now I will turn briefly to the Air Defense of China and North Korea:

Turning now to the third area of air space to be defended by the bloc, we estimate that the Chinese Communists and North Koreans have about [] fighter aircraft -- mostly FAGOT MIG-15s -- and more than [] airfields suitable for use by these aircraft.

Antiaircraft artillery totals [an estimated 4,500] pieces, mostly older Soviet models. [] The Asiatic Communist forces now have many operational aircraft control and warning radar sites.

[] However, the size of the region makes the development of an air defense network an extremely difficult and costly undertaking.

Although the Communist capability to resist penetration of the air space over China will gradually improve, we expect it to remain considerably inferior to that attained within the USSR.

Bloc Capabilities to Contest Control of Air Space:

As mentioned at the outset, we are also concerned with the bloc capability to engage in fighter versus fighter contests for control of

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air space. A large portion of the strengths which support the bloc capability to resist penetration also contribute directly to this capability.

Depending upon the area of conflict, the airfields, associated facilities, fuel, and logistic strengths available for resisting penetration of bloc-defended air space would also be available for use in supporting the bloc capability to engage in fighter contests.

Obviously, many of these resources could not be used simultaneously for both purposes. Since these strengths and resources have previously been described in detail, at this point they need only be noted as available to support this third bloc capability.

The great majority of bloc aircraft suitable for resisting penetration could also be used in fighter contests for control of air space. L 7

How the bloc would apportion its day fighters between intercepting enemy bombers and engaging enemy fighters would depend upon a number of factors, such as the number of enemy fighters and bombers involved, where the bloc fighters were based with reference to enemy fighters, the availability of other bloc weapons, such as guided missiles and how the bloc assessed the importance of intercepting enemy bombers as opposed to engaging enemy fighters.

It is obviously impossible to determine with any assurance of accuracy how the bloc would make such an apportionment, L 7 beyond the generalization that defense against penetration of bloc air space would almost

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certainly have first priority. Nevertheless, it is worth noting the number of aircraft which could be available to the bloc for engaging in fighter versus fighter contests. 7

Mr. Hamilton. What was that last sentence, please?

Mr. Dulles. It is obviously impossible to determine with any assurance of accuracy how the bloc would make such an apportionment, 7 beyond the generalization that defense against penetration of bloc air space would almost certainly have first priority. Nevertheless, it is worth noting the number of aircraft which could be available to the bloc for engaging in fighter versus fighter contests. 7

The USSR currently has more than 8,000 jet day fighters suitable for engaging in fighter versus fighter contests. This number is made up of 7 of the obsolescent FAGOTS, and 7 better day fighter types.

We believe that the older types will gradually be phased out of fighter units and replaced by new types with greatly improved performance.

 7

The European satellite air forces at present have 7 day fighter aircraft suitable for use in fighter versus fighter contests. Most of these aircraft are FAGOTS, although a few better models have begun to appear in these forces. 7

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The current estimated actual strength of aircraft in the Chinese Communist and North Korean air forces suitable for use in fighter versus fighter contests is [] mostly FAGOTS. []

Related Soviet Capabilities:

Before I conclude, I should like to comment on some of the basic Soviet capabilities to support air delivery systems, as well as several of the technological fields related to the achievement of success of the Soviet air missions.

The USSR is technologically and economically capable of supporting an increasingly powerful establishment to carry out ^{its} [the three] major objectives. [outlined at the beginning of this discussion.]

We believe that the USSR recognizes its mounting demands for complex industrial products and basic materials needed to produce and support extensive complex weapons systems. Moreover, it is actually taking specific economic measures to assure the capabilities of fulfilling the anticipated industrial demand of such weapons systems.

For example, we note in the Soviet Sixth Five Year Plan (1956-1960), that sectors of industry critical to the production of complex modern [weapons are to the production of complex modern] weapons are to increase output by as much as 200 to 400 per cent over their current rates, while industrial output as a whole will increase by 65 per cent.

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These critical sectors include (a) instruments for automation, to be increased 3.5 times; (b) control and automatic regulating instruments, 4 times; (c) optical instruments, 3 times; (d) capacity for producing heat-resistant alloys, 6 times; (e) radio measuring instruments, 3 times; and (f) computers and calculators, 4.5 times.

[Most of this comes from the Soviet, the last Soviet Five Year Plan.]

Mr. Hamilton. Is it your judgment, as you imply, Mr. Dulles, that they have the capacity to do that?

Mr. Dulles. In the past, they have tended to meet their objectives in the industrial field, while falling rather badly behind in the agricultural field.

Mr. Hamilton. There they have the weather.

Mr. Dulles. It is hard to predict whether in these fields here, where they are increasing by so many times, they have set for themselves a goal which is beyond their capacity.

But by and large, in the industrial field, they generally have tended to meet their Five Year Plans that they have set for themselves.

Mr. Hamilton. You think it would be safe for us to assume that they could do this?

Mr. Dulles. I think it would be unsafe to assume they couldn't, yes.

Some of these figures are very interesting -- the capacity to produce heat-resistant alloys to be increased 6 times.

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Mr. Hamilton. It sheds light, I suppose, on tensions.

Mr. Dulles. Yes, sir, it sheds light on the guided missile situation, and also on the aircraft situation, because it is in those two areas where these are particularly needed.

Senator Symington. Six times what, Mr. Dulles?

Mr. Dulles. Six times the present production scale.

Some of the basic materials used in the production or operation of aircraft and guided missiles are expected to increase at much higher rates than the whole industrial sector of the Soviet economy.

For example, the 1960 output of aluminum and petroleum is planned to be double that of 1955, and the output of electronics is planned to be three times that of current levels.

Mr. Hamilton. Pardon me, is that over-all petroleum, or just fuel?

Mr. Dulles. That is not restricted just to aircraft fuel. LJ

These planned goals are to develop further an economy which has already reached rather high levels of performance. The 1955 Soviet gross national product was about 130 billion 1951 dollars, or approximately one-third of that of the U.S.

According to some preliminary studies, Soviet military expenditures, in dollar terms, were equal to some 90 per cent of U.S. military expenditures.

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The figures I am giving right here [are the figures of the Central Intelligence Agency, and] have not yet been coordinated in the entire community, but we think they are reasonably accurate.

[] We would gauge the Soviet military expenditure in 1955 as in the range of the equivalent, to us, of \$30 billion.

OFF THE RECORD

[]

Before 1952, the USSR was producing combat aircraft at a very high rate in an effort to overcome its postwar deficit in modern military aircraft.

The decreased Soviet production in 1953 was primarily due to a changeover to the medium and heavy jet bombers. The build-up following this changeover resulted in increasing output which has not yet reached its peak.

I have already mentioned nuclear weapons several times where they were appropriate to individual portions of this briefing, but I would like to summarize the Soviet position with regard to this vital element in air warfare.

Senator Symington. Mr. Director, may I ask that the figures of that chart be included as part of the record, so that the chart is made a part of the record at that point?

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That applies to all charts, as Senator Jackson says.

Mr. Dulles. It will be done.

Senator Symington. Thank you.

Mr. Dulles. At the present time we ~~estimate~~^{believe} that the USSR has a significant number of 5 7 nuclear weapons.

OFF THE RECORD

5 7

Bloc capabilities for electromagnetic warfare are also an important addition to both offensive and defensive air capabilities. As a base for electromagnetic warfare, the USSR and its satellites have an active, large, and well-organized radio jamming system consisting of several thousand radio jamming transmitters.

OFF THE RECORD

5 7

The USSR has had access to several types of World War II U.S. defensive radar and to some U.D. jamming equipment. 5 7

We estimate that the USSR now has at least limited quantities of both ground and airborne equipment for jamming radar. Such equipment would include active, passive, and confusion devices. 5 7

Over the next several years, the USSR will probably continue to improve its jamming capability by the development of equipment covering a

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wider range of frequencies and by increased effectiveness of jamming operations.

Finally, notice that the development of Soviet air capabilities I have outlined is based on our estimate that the Soviet leaders will devote a substantial effort to improving their air capabilities within the limits of fairly steady technological progress.

Our estimates are based on the assumption that neither domestic and international political factors nor unexpected technological breakthroughs will alter the general nature of Soviet weapons programs in the near future.

This concludes my formal presentation, Mr. Chairman.

Senator Symington. Thank you, Mr. Director.

Senator Welker. Mr. Chairman, may I have one additional question, to clarify something that I started on a moment ago?

Senator Symington. Senator Welker.

Senator Welker. With respect to the 17 MIG-17s.

The original question propounded by our distinguished chairman, page 127 of the hearings before the Armed Services Committee on February 21, 1956, and I quote:

"Senator Symington. How many MIG-17s do we figure the Communists have built?"

This question being propounded to the Chief of Staff of the Air Force, General Twining. His answer:

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"We figure that probably they have built -- these are estimates only []

I wanted to clarify that, because there were two phases of the interrogation, one by our chairman and one by myself.

Senator Symington. Thank you, Senator.

Tomorrow, there is a meeting of the full committee in the morning; and Friday morning we have an open hearing.

Would you be available Friday afternoon?

How would Monday morning be?

Mr. Dulles. Monday morning is very much better. I have to be in Cincinnati on Friday night.

Senator Jackson. It would be better for me, Mr. Chairman.

Mr. Dulles. It would give us a little time, too, to go over the testimony.

Senator Symington. Would Monday morning be satisfactory to the committee?

Senator Duff. It is satisfactory to me.

Senator Saltonstall. It is satisfactory to me.

Senator Jackson. What day is that?

Senator Symington. Monday morning. Monday morning at 10:00 o'clock.

Mr. Dulles. Yes.

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Senator Jackson. Mr. Chairman, I have just one request. I have a list here of 12 interrogatories. They are mixed questions which relate to specific intelligence information; some of them are mixed with our capability. In other words, they are relative comparisons.

I think the questions should go to the Department of Defense and the Department of the Air Force; and if we could get answers back to them, it would just save a lot of time here.

Senator Symington. Would you like to have the questions put in the record at this point? I would like to have the questions put in the record, and a copy -- General, can you take it, or is this a matter for the General Counsel?

Mr. Dulles. I wonder if the General Counsel had not better handle it.

Mr. Sprague. I would be glad to take it.

Senator Jackson. I will give this to the reporter, who will give a copy to the General Counsel.

(The questions are as follows:)

1. Is it accurate to say that the Soviets may now be quantitatively equal to us in the production of long-range jet bombers?
2. Is it accurate to say that, even with the proposed 35% acceleration in B-52s, the Soviets may have more long-range jet bombers in their air force by 1958 than we will?

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3. Is it accurate to say that the new day fighter and all-weather interceptors recently unveiled over Moscow in operational numbers are better planes, performance-wise, than any comparable aircraft we have now in squadron service?

4. Is it accurate to say that, in terms of numbers of advanced fighters in operational service, the Soviets are now overwhelmingly ahead of us?

5. Is it accurate to say that the Soviets have produced and flown jet engines with greater thrust than we ourselves have?

6. Is it accurate to say that our defense planners underestimated the date on which the first Soviet long-range jet bomber was flown?

7. Is it accurate to say that our defense planners underestimated, by a large margin, the date on which the Soviets would fly operational numbers of their long-range jet bombers?

8. Is it accurate to say that the Soviets have been able to tool up for mass production of aircraft more quickly than we have -- in other words, that their lead time from the design of prototype aircraft to mass production models is shorter than ours?

9. Is it accurate to say that, by 1960, the Soviets will probably have more scientists and engineers working in the airpower field than we ourselves will have?

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10. Is it accurate to say that, if present trends continue, the Soviets may be ahead of us in airpower -- both quantitatively and qualitatively -- by 1960?

11. Is it accurate to say that the Soviets may achieve a continental ballistic missile -- one with a 1500 to 2000 mile range -- before we will? If so, what degree of likelihood do you attach to this possibility?

12. Is it accurate to say that the Soviets may achieve an intercontinental ballistic missile before we do? If so, what degree of likelihood do you attach to this possibility?

(The answers to the questions are as follows:)

COMMITTEE INSERT

Senator Symington. Is that all?

I have one comment to make, Mr. Sprague, while we are here.

Yesterday in the Scripps-Howard newspaper, I noticed a release on an Air Force fighter called the F-104. There has been considerable talk about security, and as to whether or not the fact this fighter goes above 50,000 feet is secret and whether it should be publicized is not a matter that I would know about.

However, it gives figures in the release which do not coincide with the information which has been presented to this committee, and I think at some point we ought to get the facts here of what is released to the people.

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The figures that are given in the story are better figures than the figures given to the committee on a classified basis. I do not think that the people should be misled.

In this story, it says:

"Now in 'large quantity' production by Lockheed Aircraft Company and scheduled for service in the 'near future', the Starfighter was seen as giving the United States a commanding lead in the global airpower struggle."

If the information given the committee with respect to production is correct, that statement is false and deceiving, and I want to bring it to the attention of the committee, because not only is there no "now in large quantity production" going on; the total number of F-104s that have been produced, according to the information given this committee, are two up to the 1st of April.

I believe that much of the committee's decision as to what should or should not be released after these hearings will depend upon the opinion of the committee as to the veracity of the information which is being released from the Department of Defense.

I would ask that you look into this, Mr. Sprague. I will give you the article in question.

If it is correct, if the story is correct, and it puts it in quotes, then the information given the committee is false, and I would like to get it cleared up for the record.

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Mr. Sprague. Yes, sir, I will do my best to do so.

Senator Jackson. Mr. Chairman, on the answers to the questions, I do not want to place an undue burden on the Defense Department, but it would be helpful if we could have it by Monday. They should be easy; These questions I asked in another committee, to be completely candid.

So, I mean, the answers, Mr. Sprague, should not be difficult.

Senator Symington. Before we adjourn, I would like to say --

Senator Jackson. The information is available, and was supplied.

Senator Symington. The next meeting of the committee will be Friday morning at 10:00 o'clock. It will be an open hearing, and the witnesses will be Admiral Carney and General Spaatz.

As a result of a request from Senator Saltonstall, we thought we would have a closed meeting on Tuesday, but inasmuch as neither he nor Senator Duff can be here Tuesday, Mr. Counsel, we will have to postpone that until Wednesday. I would not want to have a meeting without either one.

Senator Duff. I would just like to indicate, Mr. Chairman, if I may, as a matter of record, that is the date of the primaries in Pennsylvania, and I am rather anxious to be present. (Laughter)

Senator Saltonstall. Mr. Chairman, might I say, while we are meeting, that as far as I am concerned, as one individual, after next

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Tuesday I will be available any day, morning afternoon, or evening, up to May 22.

Senator Symington. We are very glad to cooperate with you.

Senator Saltonstall. I cannot be here Friday morning.

Senator Symington. We want you here.

Thank you very much, Mr. Director. We will see you Monday morning at 10:00 o'clock. We thank your assistants.

(Whereupon, at 12:35 p.m., the subcommittee adjourned, to reconvene at 10:00 a.m., Monday, April 23, 1956.)

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